PROPOSED AMENDED RECORD of DECISION

NEW YORK STATE | Department of Environmental Conservation

SITE No. 130003A & 130003B | MAY 2019 | NYSDEC REGION 1

Amended Remedy Proposed for State Superfund Site

Public Meeting and Comment Period Announced

Navy Grumman Groundwater Plume

Northrop Grumman Bethpage Facility and Naval Weapons Industrial Reserve Plant Sites
Bethpage, NY

New York State Superfund Program | Bethpage, Town of Oyster Bay, New York

WHERE TO FIND INFORMATION

Project documents are available at the following location(s) to help the public stay informed.

Bethpage Public Library
47 Powell Avenue
(516) 931-3907

NYSDEC Region 1 Office
50 Circle Road
Stony Brook, NY 11790-3409
(631) 444-0200

WHO TO CONTACT @

Comments and questions are always welcome and should be directed as follows:

PROJECT-RELATED QUESTIONS:
Jason Pelton, P.G.
Project Manager NYSDEC
625 Broadway
Albany, New York 12233
(518) 402-9676
jason.pelton@dec.ny.gov

HEALTH-RELATED QUESTIONS:
Steve Karpinski
NYSDOH
Empire State Plaza
Corning Tower, Room #1787 Albany, New York 12237
(518) 402-7860
beei@health.ny.gov

FOR INFORMATION ON THE NORTHROP GRUMMAN AND NWIRP SITE REMEDIATION PROGRAM:
http://www.dec.ny.gov/chemical/35727.html

Public Meeting & Availability Session

Monday, June 10, 2019
Bethpage High School, 10 Cherry Ave., Bethpage, NY 11714
Availability Session Begins at 5:00 PM
Public Meeting Begins at 7:00 PM

NYSDEC invites you to a public meeting to discuss the cleanup plan proposed for the site. You are encouraged to provide comments at the meeting, and during the 45-day comment period described in this fact sheet. Experts from NYSDEC, NYSDOH, United States Geological Survey, and the engineering firm Henningson, Durham, & Richardson Architecture & Engineering, P.C. (HDR) will present details of the proposed amended remedy and answer questions from the community. The availability session offers the opportunity for community members to have one-on-one interaction with project managers from the State Departments of Environmental Conservation and Health as well as other environmental and health professionals working on this project.

The public is invited to comment on the cleanup plan being proposed by the New York State Department of Environmental Conservation (NYSDEC) in consultation with the New York State Department of Health (NYSDOH) to address contamination related to the Navy Grumman groundwater plume associated with the Northrop Grumman Bethpage Facility and Naval Weapons Industrial Reserve Plant (NWIRP) sites located in the Town of Oyster Bay in Bethpage, Nassau County. The proposed plan is in the form of an Amended Record of Decision (AROD) - a comprehensive plan to contain and clean up the contamination plume and hold the U.S. Navy and Northrop Grumman, accountable for its implementation. The estimated cost to implement the remedy is $585 million.

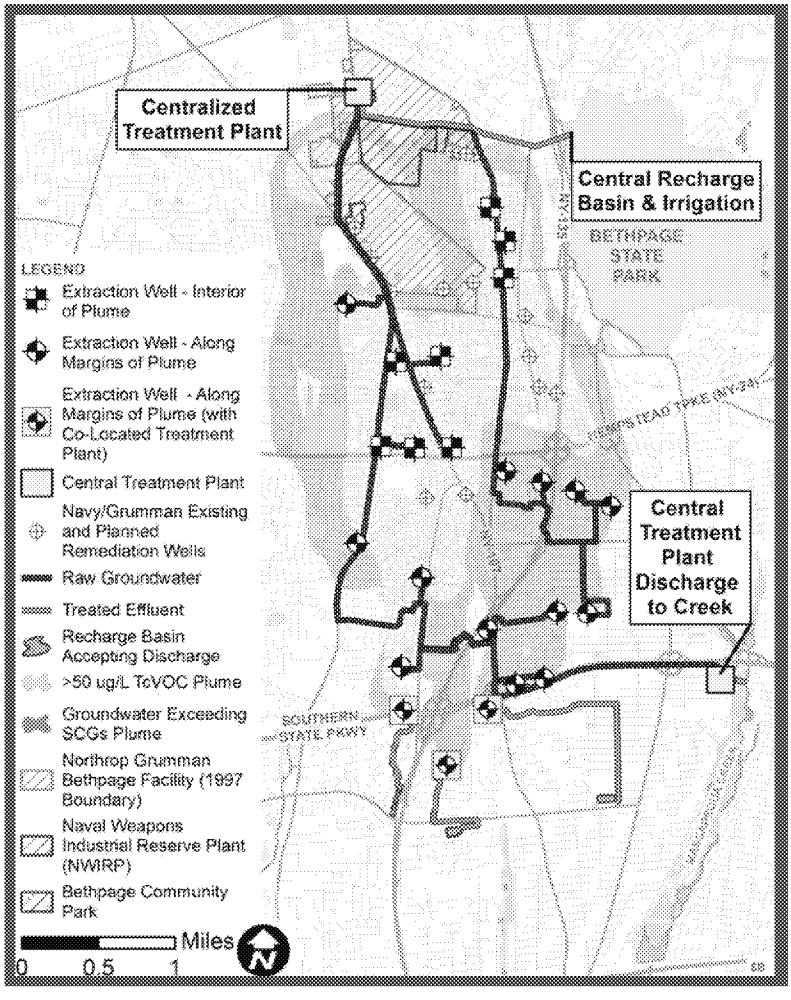
How to Comment

NYSDEC is accepting comments about the proposed AROD for 45 days, from May 23 through July 7, 2019. The proposed AROD and other documents are available for public review at the location(s) identified at left under "Where to Find Information." Please submit comments to the NYSDEC project manager listed under Project-Related Questions in the "Who to Contact" area at left.

Proposed Amended Remedy

The amended remedy proposed for the site is the construction, long-term operation, and maintenance of a full containment and treatment system that can effectively halt the further spread of contaminants. The amended remedy supplements the existing remedies and includes:

- Completion of the design necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program;
- Installation of 24 groundwater extraction wells - eight in the interior of the Navy Grumman groundwater plume (black and white square symbols in the figure to the right) and 16 along the margins of the plume (black and white circular symbols) - to prevent continued migration of the Navy Grumman groundwater plume. In total, the extraction wells would withdraw approximately 12,100 gallons per minute (17.5 million gallons per day) of contaminated water from the aquifer. The actual number, location, depth, and pumping rates for the extraction wells would be determined during the remedial design;
- The extracted groundwater would be treated at one of five groundwater treatment plants using air stripping technology. Advanced oxidation process (AOP) technology would be used for 1,4-dioxane removal, if necessary, based on data acquired during the remedial design;
- Following treatment, water would either be returned to the aquifer system using a constructed recharge basin near Bethpage State Park or existing recharge basins near the Southern State Parkway; beneficially re-used for irrigation purposes at Bethpage State Park; and/or beneficially re-used to augment surface water flow in Massapequa Creek;



Proposed Amended Remedy Concept Figure

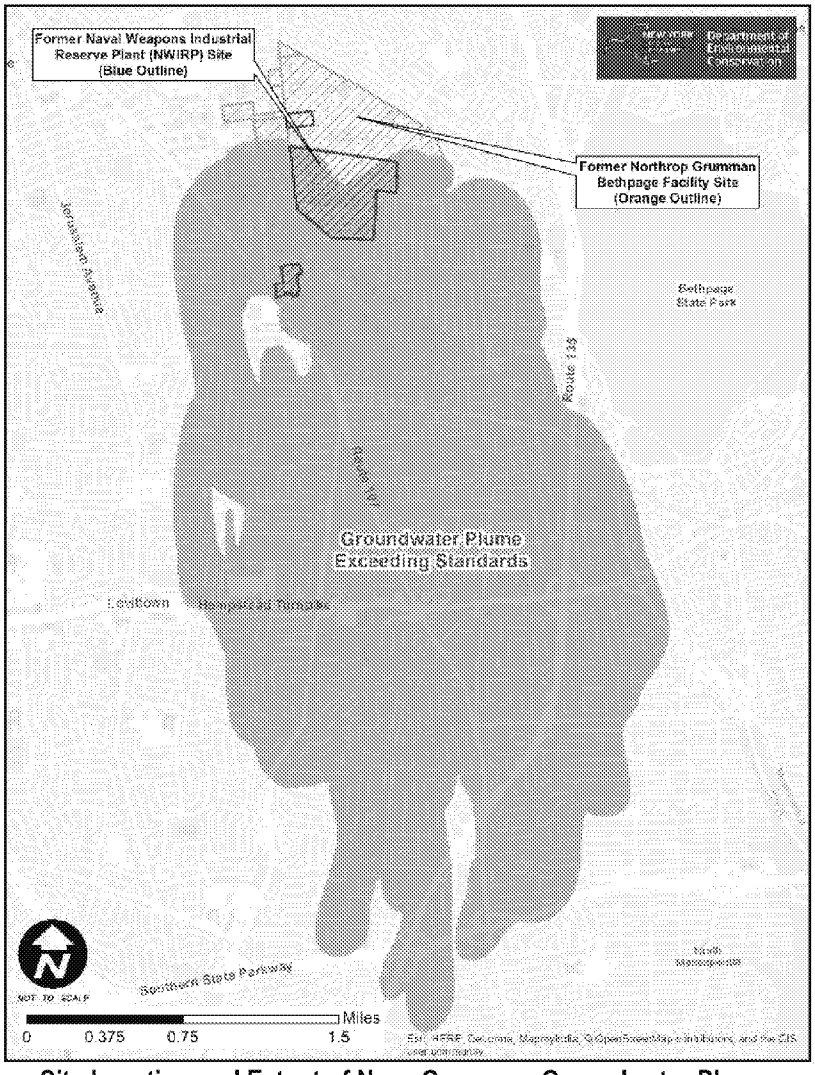
- To convey water from the extraction wells to the treatment plants and from the treatment plants to the discharge locations, it is estimated that approximately 124,000 feet (23.5 miles) of underground conveyance piping would be installed (pink lines originating from extraction wells on the figure above); and
- A Site Management Plan (SMP) would be implemented for long-term operation and maintenance of the remedial systems.

NYSDEC developed the proposed amended remedy after reviewing the detailed investigation of the site and evaluating the remedial options in the "Feasibility Study". The proposed amended remedy was selected to achieve the following goals:

1) Stop further migration of the Navy Grumman groundwater plume;
2) Prevent contamination from reaching un-impacted drinking water wells and reduce concentrations in currently impacted wells;
3) Reduce the volume and contaminant concentrations within the Navy Grumman groundwater plume;
4) Protect the Long Island aquifer and the region's water resources by returning treated water to the aquifer system; and
5) Reduce the timeframe for cleaning up the Navy Grumman groundwater plume.

Summary of the New Expanded Investigation

Since discovery of the Navy Grumman groundwater plume in the 1970s, investigation activities have demonstrated that past practices contaminated groundwater with chlorinated solvents and that the extent of the groundwater plume has expanded. The investigation results indicate that the primary contaminant of concern in the groundwater plume is the chlorinated solvent trichloroethene (TCE).



Site Location and Extent of Navy Grumman Groundwater Plume

There are 11 public water supply wells that have been impacted by the groundwater contamination originating from the Northrop Grumman and NWIRP sites, and 16 public water supply wells that are threatened by the Navy Grumman groundwater plume. The 11 impacted public water supply wells have treatment for TCE and related compounds that allows for continued use of these wells for drinking water purposes.

In February 2017, the NYSDEC initiated an expanded and expedited investigation to develop an up-to-date understanding of the groundwater plume and an engineering analysis to evaluate alternatives to address the Navy Grumman groundwater plume. To complete this investigation and engineering evaluation, the NYSDEC partnered with the United States Geological Survey (USGS) and issued a work assignment to the engineering firm Henningson, Durham, & Richardson Architecture & Engineering, P.C. (HDR). The investigation indicates that the Navy Grumman groundwater plume extends approximately 4.3 miles south toward the Southern State Parkway and to depths of 900 feet beneath the ground surface. At its widest point, the plume is approximately 2.1 miles wide. The investigation has also confirmed that while there are two on-site groundwater containment systems and one off-site groundwater extraction and treatment system operating and removing significant amounts of groundwater contamination, the Navy Grumman groundwater plume continues to migrate to the south-southeast. This southward migration of the plume is causing contaminant concentrations to increase in off-site groundwater and threatens downgradient groundwater and surface water resources.

Background and Site Description

The Northrop Grumman Bethpage Facility and NWIRP sites are located in the Hamlet of Bethpage, Town of Oyster Bay, New York (see site location map below) and have been associated with the aerospace industry since approximately the 1930s. Activities performed at these facilities occurred on an approximately 600-acre area until manufacturing ceased in 1996. Past disposal practices have contaminated both on-site and off-site groundwater in the EPA designated Long Island Sole Source Aquifer system. With off-site migration, the Navy Grumman groundwater plume now underlies a nearly seven-square-mile heavily developed commercial and residential area within Nassau County.

Additional site details, including environmental and health assessment summaries, are available on NYSDEC's Environmental Site Remediation Database (by entering the Site ID, 130003A or 130003B) at:

http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=3

State Superfund Program

New York's State Superfund Program (SSF) identifies and characterizes suspected inactive hazardous waste disposal sites. Sites that pose a significant threat to public health and/or the environment go through a process of investigation, evaluation, cleanup and monitoring.

NYSDEC attempts to identify parties responsible for site contamination and require cleanup before committing State funds.

For more information about the SSF, visit:

http://www.dec.ny.gov/chemical/8439.html

Next Steps

NYSDEC will consider public comments as it finalizes the amended remedy for the site. The selected remedy will be described in a document called an Amended "Record of Decision" that will explain why the remedy was selected and respond to public comments. A detailed design of the selected remedy will then be prepared, and the cleanup will be performed.

NYSDEC will keep the public informed throughout the investigation and cleanup of the site.

In Case You Cannot Attend the June 10, 2019 Public Meeting and Availability Session

A public meeting and availability session will be held on June 10, 2019 at Bethpage High School, to present information about the proposed cleanup plan for the Navy Grumman groundwater plume associated with the Northrop Grumman and NWIRP Sites. Experts from NYSDEC, NYSDOH, United State Geological Survey, and HDR will be on hand to discuss details of the proposed amended remedy and answer questions from the community. Handouts of the presentation materials will be available at the meeting.

If you cannot attend this meeting, please visit: http://www.dec.ny.gov/chemical/35727.html
for copies of the materials presented at the availability session.

LISTSERV: SIGN-UP TO STAY INFORMED

https://www.dec.ny.gov/chemical/61092.html